

## **Abstract**

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**Title:** Injuries from the chronic overload in climbers and prevention options – literature review

**Objective:** The aim of this thesis is to determine significant so-called biomechanic risk factors for upper extremity injuries from overload in climbers and prevention options to reduce these so-called biomechanic risk factors for upper extremity injuries from overload in climbers.

**Methods:** This thesis is processed in form of literature review. 7 electronic databases (EBSCO, MEDLINE Complete, PEDro, PubMed, Scopus, SPORTDiscus with FullText, Web of Science) were searched using keywords. From primarily searched 1824 titles were chosen using inclusion and exclusion criteria 13 studies.

**Results:** The most frequently addressed significant so-called biomechanic risk factor for upper extremity injury in climbers is the crimp grip. Other significant so-called biomechanic risk factors for upper extremity injury in climbers are isolated grip and dead point technique in two-handed dyno. Prevention options of these so-called biomechanic risk factors are slope grip, parallel grip, warm up with 100 cyclic climbing loads of upper extremities and in vertical jumps jump higher than is required by dead point technique.

**Keywords:** Climbing, risk factor, overload injury, chronic injury, upper extremity